

STATISTICAL MATCH PARAMETER ESTIMATES

Estimate Std. Error
 K = 8.9767E+000 +/- 9.4857E-002 ft/day
 y0 = 4.1366E+000 +/- 8.7401E-002 ft

ANALYSIS OF MODEL RESIDUALS

residual = observed - calculated
 weighted residual = residual * weight

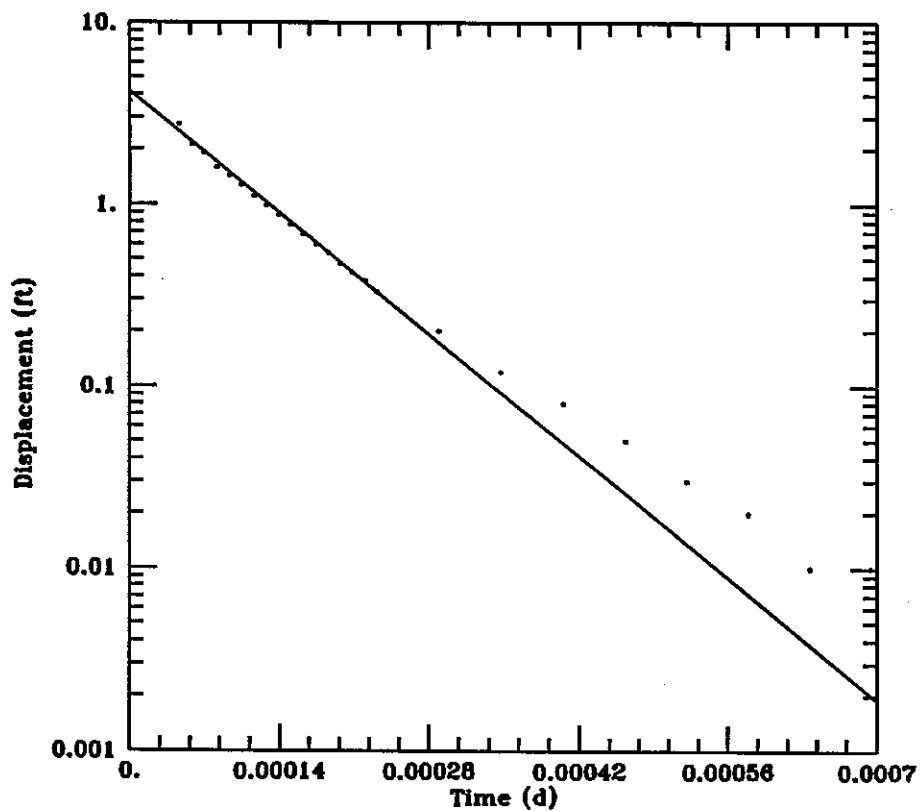
Weighted Residual Statistics:

Number of residuals..... 25
 Number of estimated parameters.... 2
 Degrees of freedom..... 23
 Residual mean..... -0.001676
 Residual standard deviation..... 0.069
 Residual variance..... 0.004761

Model Residuals:

| Time | Observed | Calculated | Residual |
|----------|----------|------------|-----------|
| Weight | | | |
| 4.6E-005 | 2.74 | 2.4957 | 0.24435 |
| 1 | | | |
| 5.8E-005 | 2.12 | 2.1874 | -0.067427 |
| 1 | | | |
| 6.9E-005 | 1.9 | 1.9384 | -0.038446 |
| 1 | | | |
| 8.1E-005 | 1.59 | 1.699 | -0.10904 |
| 1 | | | |
| 9.3E-005 | 1.43 | 1.4892 | -0.059197 |
| 1 | | | |
| 0.000104 | 1.27 | 1.3197 | -0.049691 |
| 1 | | | |
| 0.000116 | 1.11 | 1.1567 | -0.046702 |
| 1 | | | |
| 0.000127 | 0.98 | 1.025 | -0.045042 |
| 1 | | | |
| 0.000139 | 0.87 | 0.89844 | -0.028444 |
| 1 | | | |
| 0.00015 | 0.77 | 0.79618 | -0.02618 |
| 1 | | | |
| 0.000162 | 0.68 | 0.69785 | -0.017847 |
| 1 | | | |
| 0.000174 | 0.6 | 0.61166 | -0.011659 |
| 1 | | | |

KRRFNM SLUG TEST



DATA SET:
KRRFNM.DAT
02/10/97

AQUIFER MODEL:
Unconfined
SOLUTION METHOD:
Bouwer-Rice

TEST DATA:
H0 = 3.67 ft
rc = 0.0833 ft
rw = 0.25 ft
L = 15. ft
b = 27.94 ft
H = 27.94 ft

PARAMETER ESTIMATES:
K = 8.977 ft/day
y0 = 4.137 ft

KRRFNM SLUG TEST DATA

| ELAPSED TIME (MIN) | HERMIT VALUE (FT) | ELAPSED TIME (DAYS) | DRAWDOWN (FT) | WEIGHT |
|--------------------------|-------------------------|---------------------------|------------------|--------|
| 0.000000 | 3.83 | 0.000000 | 1.41 | 1 |
| 0.003300 | 4.04 | 0.000002 | 1.62 | 1 |
| 0.006600 | 3.78 | 0.000005 | 1.36 | 1 |
| 0.009900 | 3.77 | 0.000007 | 1.35 | 1 |
| 0.013300 | 3.90 | 0.000009 | 1.48 | 1 |
| 0.016600 | 3.93 | 0.000012 | 1.51 | 1 |
| 0.020000 | 3.91 | 0.000014 | 1.49 | 1 |
| 0.023300 | 3.05 | 0.000016 | 0.63 | 1 |
| 0.026600 | 3.92 | 0.000018 | 1.50 | 1 |
| 0.030000 | 4.42 | 0.000021 | 2.00 | 1 |
| 0.033300 | 4.47 | 0.000023 | 2.05 | 1 |
| 0.050000 | 4.83 | 0.000035 | 2.41 | 1 |
| 0.066600 | 5.16 | 0.000046 | 2.74 | 1 |
| 0.083300 | 4.54 | 0.000058 | 2.12 | 1 |
| 0.100000 | 4.32 | 0.000069 | 1.90 | 1 |
| 0.116600 | 4.01 | 0.000081 | 1.59 | 1 |
| 0.133300 | 3.85 | 0.000093 | 1.43 | 1 |
| 0.150000 | 3.69 | 0.000104 | 1.27 | 1 |
| 0.166600 | 3.53 | 0.000116 | 1.11 | 1 |
| 0.183300 | 3.40 | 0.000127 | 0.98 | 1 |
| 0.200000 | 3.29 | 0.000139 | 0.87 | 1 |
| 0.216600 | 3.19 | 0.000150 | 0.77 | 1 |
| 0.233300 | 3.10 | 0.000162 | 0.68 | 1 |
| 0.250000 | 3.02 | 0.000174 | 0.60 | 1 |
| 0.266600 | 2.96 | 0.000185 | 0.54 | 10 |
| 0.283300 | 2.89 | 0.000197 | 0.47 | 10 |
| 0.300000 | 2.84 | 0.000208 | 0.42 | 10 |
| 0.316600 | 2.80 | 0.000220 | 0.38 | 10 |
| 0.333300 | 2.75 | 0.000231 | 0.33 | 10 |
| 0.416700 | 2.62 | 0.000289 | 0.20 | 1 |
| 0.500000 | 2.54 | 0.000347 | 0.12 | 1 |
| 0.583300 | 2.50 | 0.000405 | 0.08 | 1 |
| 0.666700 | 2.47 | 0.000463 | 0.05 | 1 |
| 0.750000 | 2.45 | 0.000521 | 0.03 | 1 |
| 0.833300 | 2.44 | 0.000579 | 0.02 | 1 |
| 0.916700 | 2.43 | 0.000637 | 0.01 | 1 |
| 1.000000 | 2.43 | 0.000694 | 0.01 | 1 |
| 1.083300 | 2.42 | 0.000752 | 0.00 | 1 |
| 1.166700 | 2.42 | 0.000810 | 0.00 | 1 |
| 1.250000 | 2.42 | 0.000868 | 0.00 | 1 |

KRRFNM SLUG TEST DATA

| ELAPSED TIME (MIN) | HERMIT VALUE (FT) | ELAPSED TIME (DAYS) | DRAWDOWN (FT) | WEIGHT |
|--------------------------|-------------------------|---------------------------|------------------|--------|
| 1.333300 | 2.42 | 0.000926 | 0.00 | 1 |
| 1.416600 | 2.42 | 0.000984 | 0.00 | 1 |
| 1.500000 | 2.42 | 0.001042 | 0.00 | 1 |
| 1.583300 | 2.42 | 0.001100 | 0.00 | 1 |
| 1.666700 | 2.42 | 0.001157 | 0.00 | 1 |
| 1.750000 | 2.42 | 0.001215 | 0.00 | 1 |
| 1.833300 | 2.41 | 0.001273 | -0.01 | 1 |
| 1.916700 | 2.41 | 0.001331 | -0.01 | 1 |
| 2.000000 | 2.42 | 0.001389 | 0.00 | 1 |
| 2.500000 | 2.41 | 0.001736 | -0.01 | 1 |
| 3.000000 | 2.41 | 0.002083 | -0.01 | 1 |
| 3.500000 | 2.42 | 0.002431 | 0.00 | 1 |
| 4.000000 | 2.42 | 0.002778 | 0.00 | 1 |
| 4.500000 | 2.42 | 0.003125 | 0.00 | 1 |
| 5.000000 | 2.42 | 0.003472 | 0.00 | 1 |
| 5.500000 | 2.42 | 0.003819 | 0.00 | 1 |
| 6.000000 | 2.42 | 0.004167 | 0.00 | 1 |
| 6.500000 | 2.42 | 0.004514 | 0.00 | 1 |
| 7.000000 | 2.42 | 0.004861 | 0.00 | 1 |
| 7.500000 | 2.42 | 0.005208 | 0.00 | 1 |
| 8.000000 | 2.42 | 0.005556 | 0.00 | 1 |
| 8.500000 | 2.42 | 0.005903 | 0.00 | 1 |
| 9.000000 | 2.42 | 0.006250 | 0.00 | 1 |
| 9.500000 | 2.43 | 0.006597 | 0.01 | 1 |
| 10.000000 | 2.43 | 0.006944 | 0.01 | 1 |

END

KRRFNM SLUG TEST DATA

| ELAPSED TIME (MIN) | HERMIT VALUE (FT) | ELAPSED TIME (DAYS) | DRAWDOWN (FT) | WEIGHT |
|--------------------------|-------------------------|---------------------------|------------------|--------|
|--------------------------|-------------------------|---------------------------|------------------|--------|

This is the slug test data for well KRRFNM.

This is the near-field mid-depth well (30 feet deep) at Transect F.

TD = 30 ft

CD = 15 ft

DTW = (6.56 - 4.50) = 2.06 ft below land surface

Rc = 1 in = 0.0833 ft

Rw = 3 in = 0.250 ft

screen length = 15 ft

saturated thickness = H = (30.00 - 2.06) = 27.94 ft

Static height of water in well = Lw = (30.00 - 2.06) = 27.94 ft

Calculations for volume of slug

Rs = 0.6 in = 0.05 ft

Ls = 10.2 ft = length of slug

Vs = $3.14 * Rs^2 * Ls$

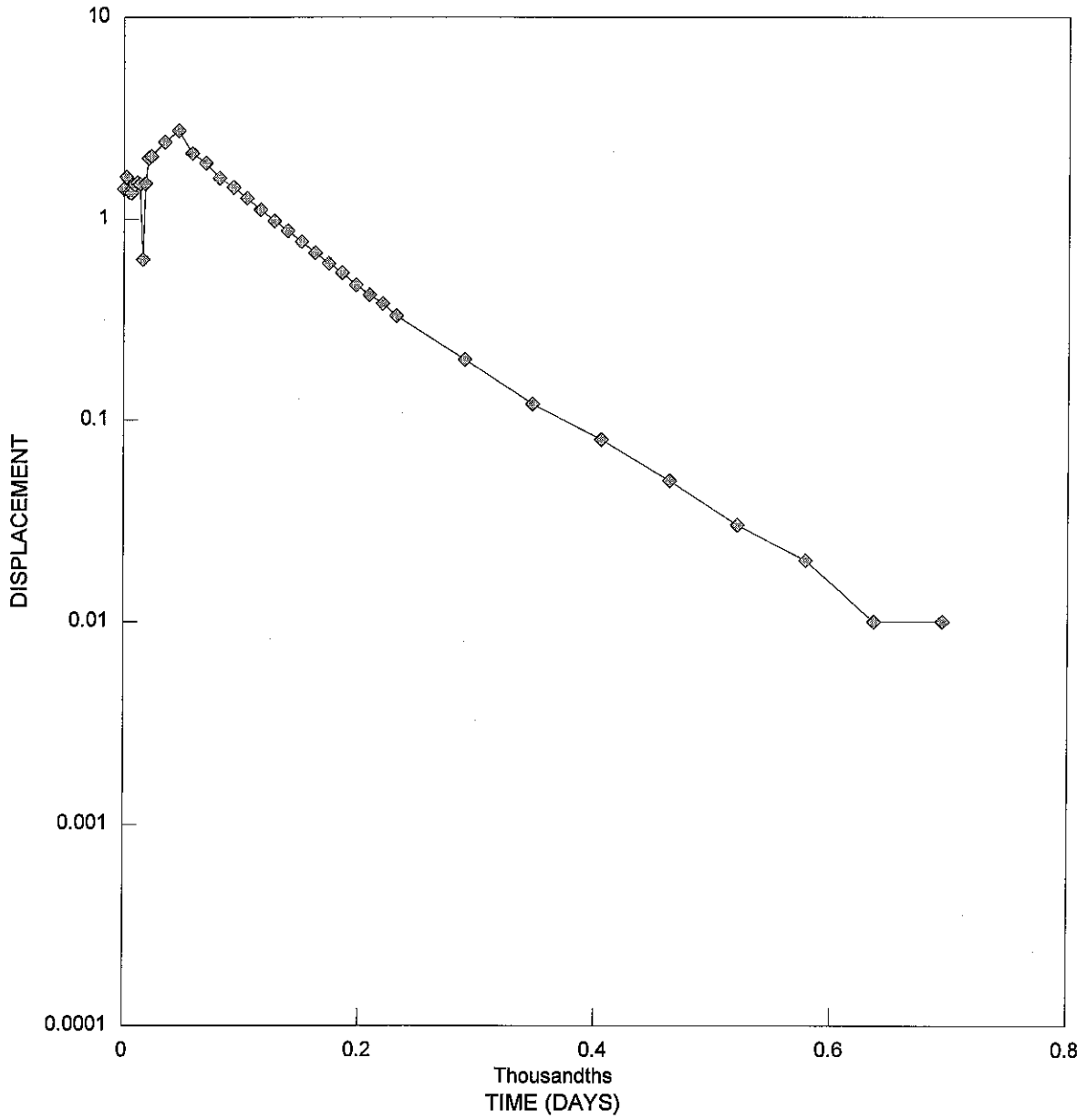
Vs = 0.08007

Calculations for H0

H0 = $Vs / (3.14 * Rc^2)$

Ho = 3.67

KRRFNM



◆ DISPLACEMEN